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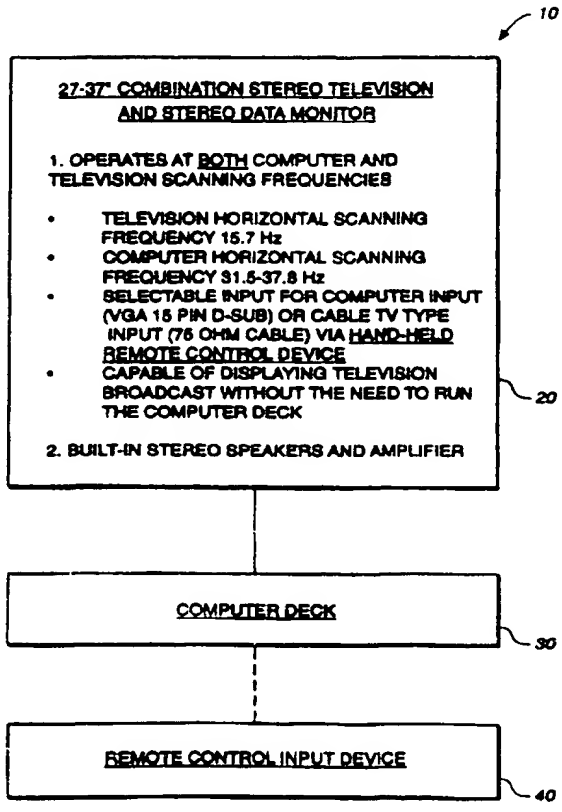
(54) Title: MULTIMEDIA COMPUTER AND TELEVISION APPARATUS

(57) Abstract

A multimedia computer and television apparatus (10) includes a dual mode monitor portion (20) adapted to display either or both a TV broadcast signal or computer (data) signal, connected to a computer portion (30) configured for both Internet access and television broadcast reception, and a remote control portion (40) adapted to control the computer portion (30) and monitor portion (20).



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MULTIMEDIA COMPUTER AND TELEVISION APPARATUS

DESCRIPTION

TECHNICAL FIELD

This invention relates generally to electronic devices, and more specifically to an improved combination multimedia computer and television apparatus.

BACKGROUND ART

The traditional home personal computer (PC) looks, feels, and functions much like the standard office personal computer. In contrast, the traditional home television is not suitable for computer usage. The inventive apparatus provides a new and unique product that is a combination large screen television and multimedia computer with a number of unique identifying characteristics.

DISCLOSURE OF INVENTION

The multimedia computer and television apparatus of this invention includes a dual mode monitor portion adapted to display either or both a TV broadcast signal or computer (data) signal, connected to a computer portion configured for both Internet access and television broadcast reception, and a remote control portion adapted to control the computer portion and monitor portion.

The inventive apparatus can thus handle many tasks: home based entrepreneurs can run complex spreadsheets, sports fans can preview up to twelve or more broadcast games at once on a high resolution screen, audiophiles can listen to clean theater quality sound, netsurfers can cruise down the information highway with speed and style, gamesters can play action, strategy and thought provoking games, and the operator can choose to do all this and more at the same time from the comfort of a couch with the inventive wireless keyboard command center. In short, the apparatus melds entertainment, education, information access, and increased productivity into a sleek elegant package that people will be proud to display

and use in their living room.

The apparatus allows the user to custom tailor their learning and entertainment environment, and uses proven, responsive technology to empower the user. The apparatus defies placement in existing product categories by combining the best features of digital technology for consumers.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a schematic block diagram of the components of the inventive multimedia computer and television apparatus of this invention.

BEST MODE FOR CARRYING OUT THE INVENTION

Fig. 1 is a schematic block diagram of the components of the inventive multimedia computer and television apparatus 10 of this invention, including combination stereo television and stereo data monitor 20, computer deck 30, and remote control input device 40.

The apparatus includes a high powered computer with a 75mhz or faster Pentium processor, a 750 megabyte or larger hard drive, 8 megabytes or more of RAM, 64 bit or more graphics accelerator, 3.5" floppy disk drive and a 28.8 bps or faster modem in a sleek low profile black case. Multimedia capabilities include a quad speed or faster CD-ROM player, 125+ channel TV tuner, video picture capture, 16 bit or more stereo sound output, and a separate game controller. The CPU also allows for expansion: RAM is expandable to 128 megabytes or more, the modem is cable modem upgradeable, and 2 or more expansion slots are provided for customer flexibility.

The monitor is a 29" or larger stereo monitor that allows for both computer input and audio/video input. The dual inputs allow the monitor to function as a normal television when the user does not want to turn on the CPU. The monitor has RCA stereo output jacks to connect to a stereo sound system to complete a home theater system.

The unique remote command keyboard controls the

whole system. In matching black, the 105 key keyboard may be powered by two AAA batteries with a working range of 40 or more feet to allow maximum user comfort and flexibility. The mouse controller may be a built-in touchpad that allows the user to be truly freed of cumbersome cords and plugs.

Components and features of the inventive apparatus may include the following or their equivalents:

CPU: Intel Pentium 75mhz processor; 8MB of System RAM expandable to 128MB; 256K Pipeline Burst mode cache; 630MB Mode 4 hard drive with 12ms average access; 1.44MB 3.5" floppy; Quad Speed 300ms access CD-ROM drive; 4 bit graphics accelerator with 1MB video memory; 2 Hi-speed 16550 buffered serial communications ports; 1 ECP/EEP hi-speed parallel port; Game/midi port; Energy saving sleep mode; 110/220 switchable power supply; FCC Class B approved; and UL/CSA approved.

Multimedia Capability: 125 channel TV tuner built into PC; Supports TV in a Window or full screen TV; Watch TV while you access the Internet, access your favorite application, or play your favorite game; On-screen remote control for channel selection, mute, On/Off, volume control; On-screen single frame video capture allows you to capture and use video images by saving them as BMP, TIFF, PCX, TGA; Simultaneously previews 12 channels at once; 16 Bit Adlib/Sound Blaster compatible sound; Stereo audio output; Accepts input from Cable TV, VCR, camcorder; 28,800 Baud internal FAX/Modem upgradeable to Cable modems; Separate game controller.

Big Screen PC+TV Monitor (e.g., 29-37 inch): Functions as a stand-alone stereo high resolution digital television or as a stereo multimedia computer monitor; Supports the following resolutions: Standard NTSC television (15.8 Khz); 640 x 480 VGA (31.5 Khz); 800 x 600 Super VGA (38khz); 1024 x 768 Super VGA (38khz); 125 channel tuner; Stereo sound; Remote control for On/Off, volume, brightness, color, HUE, contrast, channel; Remotely selectable computer input or A/V inputs (VCR,

Cable box); Stereo RCA outputs to allow connections to your home theater sound system; and Parental channel lock out.

Infrared Keyboard: 105 key full sized keyboard; Infrared sensor designed to allow up to 40 foot range of remote operation; Mouse touchpad built into the keyboard; Powered by 2 AAA batteries for long use.

Software: Microsoft Windows 95; Entertainment Plus Pack; 55 action packed and fun-filled games; Mavis Beacon teaches typing; World Atlas; Groliers Encyclopedia; America Online software; Netcom Netcruiser Internet software; 10 hours of free on-line trial service through Netcom Communications and America OnLine; and SurfWatch software to keep the Internet safe for your children.

The combination television/data monitor has been engineered to provide a unique feature set consisting of all of the following capabilities bundled together:

1. Computer levels of display resolution at 640 X 480, 800 X 600, and 1024 X 768.

2. Television display capabilities as a stand-alone device without the need for the computer deck to be turned on.

3. Selectable input for computer input (VGA 15 pin D-sub) or cable TV type input (75 Ohm cable) via hand-held remote control device;

television horizontal scanning frequency 15.7 H_z;

computer horizontal scanning frequency 31.5-37.8 H_z.

4. Built-in stereo speakers and amplifier.

This unique display with its proprietary feature set is capable of sensing what type of signal is present, be it either a TV (NTSC/PAL) or data (VGA/SVGA) signal, then to adjust accordingly to the correct scanning frequency. A further significant feature is the monitor's unique capability to function as a stand-alone television

monitor. This is accomplished by adding additional display circuitry allowing for the added display modes.

The computer deck has been specially designed to fit into a home entertainment console. Its unique identifying features include:

1. Its black or charcoal gray color, similar to the color of other consumer electronics home entertainment devices.

2. Its low-profile design height of less than the industry standard 6" height, enabling it to fit into the confines of most home entertainment cabinets.

3. Its ability to run Microsoft DOS and Microsoft Windows.

4. Its ability to receive and output to the combination television/data monitor television broadcasts.

The input device has been specially designed for the system. Its unique identifying feature set includes the combination of the following design elements:

1. Remote control alphanumeric keyboard that utilizes IR (infrared) data transmission between the keyboard's IR transmitter and the computer deck's IR receiver, allowing the keyboard to be operated remotely from the computer deck.

2. Remote control pointing device (mouse, touchpad, or trackball) that utilizes IR (infrared) data transmission between the pointing device's IR transmitter and the computer deck's IR receiver allowing the pointing device to be operated remotely from the computer deck.

3. Its black or charcoal gray color.

While this invention has been described in connection with preferred embodiments thereof, it is obvious that modifications and changes therein may be made by those skilled in the art to which it pertains without departing from the spirit and scope of the invention. Accordingly, the scope of this invention is to be limited only by the appended claims and equivalents.

MULTIMEDIA COMPUTER AND TELEVISION APPARATUS

CLAIMS

What is claimed as invention is:

1. A multimedia computer and television apparatus comprising:

a dual mode monitor portion adapted to display either or both a TV broadcast signal or computer (data) signal;

a computer portion connected to said monitor portion and configured for both Internet access and television broadcast reception; and

a remote control portion adapted to control said computer portion and monitor portion.

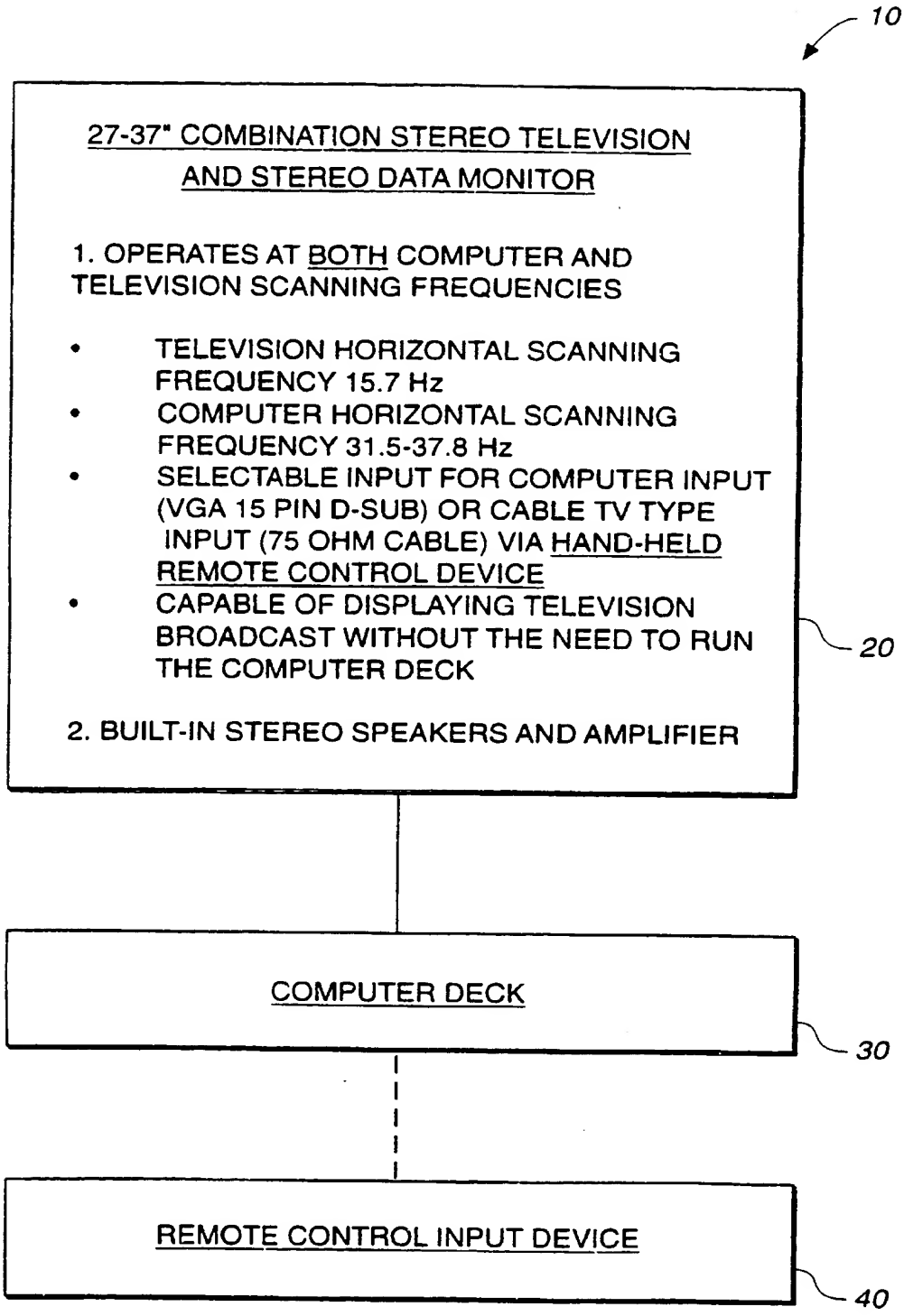

FIG._1

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US97/04111

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :H04N 5/44
US CL : 348/553, 552, 734

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 348/553, 552, 734, 563

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS, DIALOG

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	NEWS IN BRIEF Gateway 2000 Inc., Multimedia Daily, 16 February 1996, whole document.	1
X	TURN ON THE FAMILY TELEVISION SET TO 'SURF THE NET' - RCA 'GENIUS THEATRE' COMBINES HOME ENTERTAINMENT WITH ACCESS TO INTERNET, OTHER ON-LINE SERVICES WITH BIG-SCREEN COLOR TV, PR Newswire, 08 November 1995, pp. 1108CL015, whole document.	1
X	US 5, 396,546 A (REMILLARD) 07 March 1995, column 4, line 24-column 5, line 17.	1
A	US 5,481,296 A (CRAGUN ET AL.) 02 January 1996, whole document.	1

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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